Status of MC samples

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Outline

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- Status of samples
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Software Versions

Most of the data are now produced with 11.0.x

They will be reprocessed with 12.0.x when it will become
available.

https://twiki.cern.ch/twiki/bin/view/Atlas/NewsforPhysicsUsers

All analysis strategies should be developed using 11.0.42 (or
11.0.5 for trigger) data.

Users should be aware of changes in the structure of the
physics objects: look for more info at:

https://twiki.cern.ch/twiki/bin/view/Atlas/StoregateKeysForAOD

Reconstruction and Trigger

All simulation will rerun with 12.0.x using a misaligned geometry.

Reconstruction will be performed using a geometry that is not identical to the simulation but similar to one that can be expected after the alignment has been done ("residual misaligment"). In parallel with this activity, the alignment groups will be trying to arrive at the correct alignment starting with different geometry. This parallel approach will ensure that the physics notes are not tied to the alignment testing. No simulation with the as-built will be made provided that the misaligned can be validated for simulation.

All analyses should be "trigger aware"
and, ideally, should include a discussion of how the trigger (and reconstruction) efficiency is to be obtained from the data itself.

Status of Samples

It is expected that, for almost all samples, the evgen run with 11.0.4x or 11.0.5 will be used (If your evgen needs 12.0.x, you should be aware that validation is needed of these releases and the relevant jobopts should be tested against 12.0.1 or 12.0.2).

In any event ALL evgen must be submitted to the production system before Sept 10.

Signal: 5500, 5501, 5502 are being produced
Signal: 5503 and 5504 are not being produced…missed deadline?

Signal MC

- Three main samples generated with ACER
  - ◆ 5500: Wt
  - ◆ 5501: s-channel
  - ◆ 5502: t-channel
- Two samples generated with MC@NLO
  - ◆ 5503: s-channel
  - ◆ 5504: t-channel

5500: Wt

Dataset/Task	TaskID	Done	Running	To be done	WaitInp	Aborted	Completed(%)	Grid	Atlas ver	Tier
csc11.005500.AcerMC_Wt.recotrig.v11000505.task	2547	88	0	12	0	0	88.00	LCG-CG-DQ	Atlas-11.0.5	CA
csc11.005500.AcerMC_Wt.recon.v11004209.task	2546	84	0	0	0	16	100.00	LCG-CG-DQ	Atlas-11.0.42	CA
csc11.005500.AcerMC_Wt.evgen.v11004209.task	2493	20	0	0	0	0	100.00	LCG-CG-DQ	Atlas-11.0.42	DE
csc11.005500.AcerMC_Wt.digit.v11004209.task	2514	1995	0	0	0	5	100.00	LCG-CG-DQ	Atlas-11.0.42	CA
csc11.005500.AcerMC_Wt.evgen.v11004207.task	2387	13	0	0	0	7	100.00	LCG-CG-DQ	Atlas-11.0.42	CA

Data Last Retrieved:

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5501: s-channel

Dataset/Task	TaskID	Done	Running	To be done	WaitInp	Aborted	Completed(%)	Grid	Atlas ver	Tier
csc11.005501.AcerMC_schan.recon.v11004209.task	2545	82	0	17	0	0	82.83	LCG-CG-DQ	Atlas-11.0.42	DE
csc11.005501.AcerMC_schan.recotrig.v11000505.task	2548	6	48	45	0	0	6.06	LCG-CG-DQ	Atlas-11.0.5	DE
csc11.005501.AcerMC_schan.digit.v11004209.task	2513	1998	2	0	0	0	99.90	LCG-CG-DQ	Atlas-11.0.42	DE
csc11.005501.AcerMC_schan.evgen.v11004209.task	2494	20	0	0	0	0	100.00	LCG-CG-DQ	Atlas-11.0.42	UK

Data Last Retrieved:

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5502: t-channel

Dataset/Task	TaskID	Done	Running	To be done	WaitInp	Aborted	Completed(%)	Grid	Atlas ver	Tier
csc11.005502.AcerMC_tchan.recon.v11004207.task	3025	0	10	0	0	0	0.00	LCG-DQ	Atlas-11.0.42	T0
csc11.005502.AcerMC_tchan.digit.v11004207.task	3024	1989	11	0	0	0	99.45	LCG-DQ	Atlas-11.0.42	T0
csc11.005502.AcerMC_tchan.evgen.v11004207.task	2422	20	0	0	0	0	100.00	LCG-DQ	Atlas-11.0.42	T0

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Background MC

- ttbar
  - ACERMC with proper top polarization
  - Sample 5205
    - https://uimon.cern.ch/twiki/bin/view/Atlas/TopAcerMCValidationttbar
- W+jets
  - Alpgen samples
    - https://uimon.cern.ch/twiki/bin/view/Atlas/WplusJetsAlpgen
- Wbbar ?

Sample 5205

Dataset/Task	TaskID	Done	Running	To be done	WaitInp	Aborted	Completed(%)	Grid	Atlas ver	Tier
csc11.005205.AcerMCttbar.evgen.v11000502.task	2056	20	0	0	0	0	100.00	SACLAY	Atlas-11.0.5	None
csc11.005205.AcerMCttbar.evgen.v11000502.task	2192	80	0	0	0	0	100.00	SACLAY	Atlas-11.0.5	None
csc11.005205.AcerMCttbar.digit.v11004206.task	2193	7993	0	0	0	7	100.00	SACLAY	Atlas-11.0.42	None
csc11.005205.AcerMCttbar.recon.v11004206.task	2090	99	0	0	0	1	100.00	SACLAY	Atlas-11.0.42	None
csc11.005205.AcerMCttbar.digit.v11004206.task	2089	2000	0	0	0	0	100.00	SACLAY	Atlas-11.0.42	None
csc11.005205.AcerMCttbar.recon.v11004206.task	2194	398	0	0	0	2	100.00	SACLAY	Atlas-11.0.42	None

Data Last Retrieved:

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Samples: 5222-5226 (W→eν)

Dataset/Task	TaskID	Done	Running	To be done	WaitInp	Aborted	Completed(%)	Grid	Atlas ver	Tier
csc11.005226.AlpgenJimmyWenuNp5.digit.v11004206.task	2227	150	0	0	0	0	100.00	OSG	Atlas-11.0.42	None
csc11.005225.AlpgenJimmyWenuNp4.digit.v11004206.task	2228	597	0	0	0	3	100.00	OSG	Atlas-11.0.42	None
csc11.005224.AlpgenJimmyWenuNp3.digit.v11004206.task	2229	398	0	0	0	2	100.00	OSG	Atlas-11.0.42	None
csc11.005225.AlpgenJimmyWenuNp4.recon.v11004206.task	2234	25	0	0	0	5	100.00	OSG	Atlas-11.0.42	None
csc11.005224.AlpgenJimmyWenuNp3.recon.v11004206.task	2235	16	0	0	0	4	100.00	OSG	Atlas-11.0.42	None
csc11.005223.AlpgenJimmyWenuNp2.digit.v11004206.task	2195	100	0	0	0	0	100.00	LCG-CG-DQ	Atlas-11.0.42	UK
csc11.005224.AlpgenJimmyWenuNp3.evgen.v11004206.task	2197	40	0	0	0	0	100.00	OSG	Atlas-11.0.42	None
csc11.005225.AlpgenJimmyWenuNp4.evgen.v11004206.task	2198	60	0	0	0	0	100.00	OSG	Atlas-11.0.42	None
csc11.005226.AlpgenJimmyWenuNp5.evgen.v11004206.task	2199	15	0	0	0	0	100.00	OSG	Atlas-11.0.42	None
csc11.005223.AlpgenJimmyWenuNp2.evgen.v11004206.task	1874	10	0	0	0	0	100.00	LCG-CG-DQ	Atlas-11.0.42	UK
csc11.005226.AlpgenJimmyWenuNp5.recon.v11004206.task	2233	7	0	0	0	0	100.00	OSG	Atlas-11.0.42	None
csc11.005223.AlpgenJimmyWenuNp2.recon.v11004206.task	2196	5	0	0	0	0	100.00	LCG-CG-DQ	Atlas-11.0.42	UK

Samples: 8201-8205 (W→μν)

Dataset/Task	TaskID	Done	Running	To be done	WaitInp	Aborted	Completed(%)	Grid	Atlas ver	Tier
csc11.008204.AlpgenJimmyWmunuNp4.digit.v11004206.task	2231	522	78	0	0	0	87.00	LCG-DQ	Atlas-11.0.42	DE
csc11.008204.AlpgenJimmyWmunuNp4.evgen.v11004209.task	2893	0	0	0	60	0	0.00	LCG-DQ	Atlas-11.0.42	None
csc11.008205.AlpgenJimmyWmunuNp5.evgen.v11004209.task	2894	0	0	0	15	0	0.00	LCG-DQ	Atlas-11.0.42	None
csc11.008203.AlpgenJimmyWmunuNp3.evgen.v11004209.task	2895	0	0	0	10	0	0.00	LCG-DQ	Atlas-11.0.42	None
csc11.008204.AlpgenJimmyWmunuNp4.recon.v11004206.task	2237	19	2	0	0	0	90.48	LCG-DQ	Atlas-11.0.42	DE
csc11.008205.AlpgenJimmyWmunuNp5.recon.v11004206.task	2238	4	0	2	0	1	66.67	LCG	Atlas-11.0.42	None
csc11.008204.AlpgenJimmyWmunuNp4.evgen.v11004206.task	2300	60	0	0	0	0	100.00	LCG	Atlas-11.0.42	None
csc11.008205.AlpgenJimmyWmunuNp5.evgen.v11004206.task	2301	15	0	0	0	0	100.00	LCG	Atlas-11.0.42	None
csc11.008203.AlpgenJimmyWmunuNp3.evgen.v11004206.task	2302	10	0	0	0	0	100.00	LCG	Atlas-11.0.42	None
csc11.008203.AlpgenJimmyWmunuNp3.digit.v11004206.task	2230	100	0	0	0	0	100.00	LCG-DQ	Atlas-11.0.42	IT
csc11.008205.AlpgenJimmyWmunuNp5.digit.v11004206.task	2232	150	0	0	0	0	100.00	LCG	Atlas-11.0.42	None
csc11.008203.AlpgenJimmyWmunuNp3.recon.v11004206.task	2236	5	0	0	0	0	100.00	LCG-DQ	Atlas-11.0.42	IT

Full Sim vs AtlFast

ttbar studies showed a remarkably good agreement
in the performance as measured with Atlfast compared to
fullSim studies

To get a reliable estimate of cross section measurements,
rejection rates etc, we might need in at least 2 out of
3 analyses Atlfast studies.

Atlfast must be validated of course with 12.0.X (--> tuning of
Atlfast).

Atlfast expert in our group?

Rome-reprocessed samples

There are reprocessed Toprex-Rome samples that can be analyzed as soon as today with 11.0.42 (~100k / channel)

These samples are on the CC-IN2P3 and not on the grid -- Arnaud will add them ASAP